

INSTALLATION OF A 5 VOLT POWER SUPPLY IN THE RADAR DATA ACQUISITION (RDA) DIGITAL CONTROL UNIT (DCU) DRAWER

DOPPLER METEOROLOGICAL RADAR WSR-88D



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DoD APPROVAL

BY ORDER OF THE SECRETARY OF THE AIR FORCE

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Chief of Staff

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Date _____
Edward L. Berkowitz, Chief
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NWS: EHB-6, Modification Note 44
DoD: TO 31P1-4-108-558
FAA: EEM Modification Handbook 6345.1 Chap 1

1. SUBJECT

Installation of a 5 Volt Power Supply in the Radar Data Acquisition (RDA) Digital Control Unit (DCU) drawer.

2. PURPOSE

The purpose of this routine modification is to provide instructions to add a +5 V dc power supply, UD5A6PS3, part number LZS-50-1, and a cable assembly, UD5A6W900, part number 2320003-301 to the DCU drawer, UD5A6. Modifications will also be made to the Data Acquisition Unit (DAU) backplane, UD5A3, to accommodate system monitoring of the voltage level of the new power supply.

The new power supply is being added to correct deficiencies in the voltage supplied to the pedestal electronics. The authority for this modification is Operational Support Facility (OSF) Engineering Change Proposal (ECP) F0086, Pedestal Encoder Voltage Level Upgrade.

For additional information concerning this modification note, contact the Operational Support Facility, System Support Branch, Norman, Oklahoma; phone number: (405) 366-6540 ext 3229.

3. SITES AFFECTED

This modification applies to all WSR-88D RDA sites.

4. ESTIMATED COMPLETION DATE

The target completion date of this modification is 60 days after receipt of modification document and kit.

5. EQUIPMENT AFFECTED

Radar Data Acquisition (RDA) Group.

6. SPARES AFFECTED

Depot will perform procedures in attachment 1 for all depot spares.

7. MODIFICATION ACCOMPLISHED BY

Site electronic technicians will accomplish this modification. Two technicians are required to perform these procedures.

8. MATERIAL REQUIRED

Nomenclature	Part Number	NSN	Qty
a. Power Supply 5VDC	LZS-50-1	6130-01-445-4603	1 each
b. Sleeve Marker, TB1	N/A	N/A	1 each
c. Label, PS3	N/A	N/A	1 each
d. Cable Assembly	2320003-301	N/A	1 each
e. Metric Phillips Head	N/A	N/A	4 each
f. Washer, M4 Flat	N/A	N/A	3 each
g. Washer, M4 Lock	N/A	N/A	3 each
h. Tape, Duct	N/A	N/A	1 roll
i. Wirewrap, 18 inch	N/A	N/A	4 each
j. Label, DCU Drawer	TBD	N/A	1 each
k. Label, Wire harness TB-1	N/A	N/A	1 each
l. Tie wraps	N/A	N/A	8 each

9. SOURCE OF MATERIALS

Kits are requisitioned by the Operational Support Facility (OSF) Logistics Section and shipped at no cost to the site.

10. SPECIAL TOOLS AND TEST EQUIPMENT REQUIRED

- a. Drill, Electric 3/8 or 1/2 inch chuck
- b. Drill Bit, 3/32 inch
- c. Drill Bit, 7/32 inch
- d. Soldering Iron, 35 Watt or lower, and solder
- e. Wire Wrap Tool

11. TIME AND PERSONNEL REQUIRED

Work Phases	AFSC Skills	Work-Hours
Unpacking	2E051	0.1
Disassembly	2E051	0.2
Installation	2E051	1.4
Assembly	2E051	0.2
Operational Check	2E051	0.1
Total Work-Hours		2.0

12. DOCUMENTS AFFECTED

- a. Illustrated Parts Breakdown, WSR-88D Doppler Radar, dated October 15, 1997.
NWS EHB 6-501
AF TO 31P1-4-108-4
FAA TI 6460.1 V2
NAVY AB-IPB-010
- b. Maintenance Manual, WSR-88D, Radar Data Acquisition (RDA) Group Equipment, dated 1 March 98.
NWS EHB 6-510
AF TO 31P1-4-108-152
FAA TI 6460.1 V7
- c. Maintenance Manual, WSR-88D, Antenna Pedestal System Doppler Radar (Limited Production), dated 6 Mar 95.
NWS EHB 6-513, Change 2
AF TO 31P1-4-108-32, Change 2
FAA TI 6460.1 V13, Change 2
- d. Operations and Maintenance Instructions Manual, Pedestal System (Full Scale Production), dated 1 Jun 94.
NWS EHB 6-514, Change 3
AF TO 31P1-4-108-201, Change 3
FAA TI 6460.1 V22, Change 3

13. VERIFICATION STATEMENT

This modification was successfully installed at WSFO Phoenix, AZ and WSO Flagstaff, AZ.

14. DISPOSITION OF REMOVED AND REPLACED PARTS/MATERIALS

Dispose of removed jumper wire in accordance with (IAW) local procedures.

15. PROCEDURES

See attachment 1.

16. FAA DISTRIBUTION

This directive is distributed to selected offices and services within Washington headquarters, the William J. Hughes Technical Center, the Mike Monroney Aeronautical Center, regional Airway Facilities divisions, and Airway Facilities field offices having the following facilities/equipment: NXRAD.

17. CHANGES TO TABLE OF CONTENTS (FAA)

This chapter will be included in the next revision to the table of contents for FAA Order 6460.2, Electronic Equipment Modification Handbook - Next Generation Weather Radar (NEXRAD).

18. RECOMMENDATIONS FOR CHANGES (FAA)

Forward any recommendation for changes to this directive through normal channels to the National Airway Systems Engineering Division, AOS-200, Operational Support.

19. REPORTING INSTRUCTIONS

a. NWS

Report completed modification on WS Form A-26, Engineering Management Reporting System Maintenance Record, according to instructions in EHB-4, Part 2, using reporting code RDA. Also, record the modification number in block 17(a) as 44 (see attachment 3 for a completed sample of WS Form A-26).

b. DoD

Update the AFTO Form 95 to show TCTO compliance. Report TCTO compliance in accordance with TO 00-20-2, Table 3-10, Rule 9.

c. FAA (Changes to Recorded Data)

Enter this document number, date, and chapter number in the appropriate FAA Form 6032-1, Airway Facilities Modification Record.

NWS: EHB-6, Modification Note 44
DoD: TO 31P1-4-108-558
FAA: EEM Modification Handbook 6345.1 Chap 1

d. All Agencies

Complete attachment 2 and fax, mail, or e-mail information to:

- (1) Mail Address: System Support Branch, Logistics Section
 Operational Support Facility
 3200 Marshall Ave Suite 101
 Norman, Oklahoma 73072-8028

- (2) Fax Number: (405) 366-6553
 ATTN: Logistics Section

- (3) E-mail Address: Logistics@osf.noaa.gov